

REMARKS

Reconsideration of the application is requested.

Claims 14-25 and 27-30 are now in the application. Claims 14-25 are subject to examination. Claim 25 has been amended. Claims 27-30 and 27-30 have been added. Claim 26 has been canceled to facilitate prosecution of the application.

An RCE has been filed concurrently with this amendment. This amendment is submitted preliminary to further examination as called for by the RCE, and is also submitted in response to the Advisor action dated June 30, 2009 and further in response to the Final Office action dated April 20, 2009.

In addition, in the Advisory action, the Examiner has cited U.S. Patent No. 4,825,383 to Ory to support the assertion that using a positive thermal coefficient resistor as a sensor element is well known and that this would have resulted in the claimed invention.

The Examiner has recognized that Tornare does not teach a constant current source, but rather teaches a current generator with variable duty cycle. However, Tornare also teaches that the average value of the signal of this current generator, due to the regulation by the circuit enslavement 16, is known in advance. This is taught at page 3, second paragraph and page 4, first paragraph of the translation, which teaches: "...the average intensity of the

current running through the electrical conductor resistive 13 is known in advance...". It clearly follows therefrom that a current with an average intensity that is known in advance is applied to the measuring (sensor) resistor and the reference resistor that are connected in series.

As applicants have explained in detail in the previous amendment, contrary to a current with a known average intensity, claims 14 and 25 specify that the voltage from a voltage source is applied to the sensor resistor and the reference resistor that are connected in series.

In the Advisory action, the Examiner is correct in stating that Ory (4,825,383) teach applying a constant voltage to a series connected sensor resistor and reference resistor in order to ascertain the level of a fluid. However, the voltage at the sensor resistor (1) is maintained at a constant value by a voltage-stabilizing circuit (7). As a result of that, the current is a direct measure for the resistance of the sensor resistor (1), and this current is converted by means of the reference resistor (2) into a voltage to be measured by the A/D converter (3).

Contrary to the teaching in Ory, the entire voltage, which drops via the series connected sensor resistor and reference resistor, is kept constant in the subject matter of the application. This causes the voltage drop at the sensor resistor to increase in the case of an increasing resistance of the sensor resistor with increasing temperature compared to the voltage drop at the reference resistor,

whereas the current decreases. The decreasing current can therefore not be a measure for the increasing resistance. Thus, an entirely different measuring method is present than the one suggested by Ory. As expressed in claim 14, it leads in particular to the energy dissipated in the sensor resistor to be substantially constant over the measuring range (range of values of the sensor resistor) when the reference resistor has been selected appropriately.

In order to even further distinguish the invention from the teaching in Ory, the limitations of claim 26 have been added to claim 25. Claim 25 now specifies that the voltage drop at the series connected sensor resistor and reference resistor is regulated. This is not the case in Ory since the voltage drop is merely the voltage drop at the sensor resistor.

Claim 22 even further distinguishes the invention from the prior art by specifying that the control unit outputs a variable characterizing a voltage drop by said sensor resistor and said reference resistor at said first output; and that the control unit outputs a variable characterizing a potential between said sensor resistor and said reference resistor at said second output.

Claim 22 specifies that in order to ascertain the value of the sensor resistor, which is a measure for the filling level of a fluid, the voltage across the series connected sensor resistor and reference resistor is considered, and additionally, the voltage solely at the reference resistor is considered (See Fig. 2). This is not taught or suggested by the prior art.

Claims 27-30 have also been added to further distinguish the invention from the prior art. Support for claims 27 and 29 can be found by referring to the translated specification at page 12, lines 15-20. Support for claims 28 and 30 can be found by referring to the translated specification at page 19, line 7 though page 20, line 2.

Claims 27 and 29 specify that the sensor resistor senses an oil level of an engine of a motor vehicle. In contrast, the sensor resistor in Ory measures the level in a storage vessel.

Claims 28 and 30 specify that the sensor resistor senses the oil level of the engine of the motor vehicle substantially independently of an initial temperature of said sensor resistor. This is not taught or suggested in the prior art.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 14 or 25. Claims 14 and 25 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 14 or 25.

In view of the foregoing, reconsideration and allowance of claims 14-25 and 27-30 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section 1.136(a) in the amount of \$130.00 in accordance with Section 1.17 is enclosed herewith.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Sterner LLP, No. 12-1099.

Respectfully submitted,

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MPW:cgm

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